

**WHAT IS CLAIMED IS:**

1. An apparatus for improving the dynamic range of a receiver, comprising:  
a processor for computing an error rate of a received signal; and  
5 a low noise amplifier with an adjustable input intercept point, wherein the  
input intercept point is adjusted depending on the computed error rate.
2. The apparatus of claim 1, wherein the input intercept point is adjusted  
based also on a transmit power level.
- 10 3. The apparatus of claim 2, wherein if the transmit power level is low, and  
the computed error rate exceeds a predetermined threshold, the input intercept point is set  
at a maximum level.
- 15 4. The apparatus of claim 2, wherein if the transmit power level is low, and  
the computed error rate does not exceed a predetermined threshold, the input intercept  
point is set at a minimum level.
- 20 5. The apparatus of claim 2, wherein if the transmit power level is high, the  
input intercept point is set at a maximum level.
6. The apparatus of claim 1, wherein the computed error rate is a frame  
erasure rate.
- 25 7. The apparatus of claim 1, wherein a gain of the low noise amplifier is  
adjusted based on a received signal strength.
8. A system for receiving and transmitting signals, comprising:  
a transmitting path for processing signals for transmission; and

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a receiving path for processing received signals, the receiving path including a low noise amplifier with an adjustable input intercept point and a processor for computing an error rate of a received signal, wherein the input intercept point is adjusted depending on the computed error rate.

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9. The system of claim 8, wherein the input intercept point is also adjusted depending on a transmit power level of the system.

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10. The system of claim 9, wherein if the transmit power level is low, and the computed error rate exceeds a predetermined threshold, the input intercept point is set at a maximum level.

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11. The system of claim 9, wherein if the transmit power level is low, and the computed error rate does not exceed a predetermined threshold, the input intercept point is set at a minimum level.

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12. The system of claim 9, wherein if the transmit power level is high, the input intercept point is set at a maximum level.

13. The system of claim 8, wherein the computed error rate is a frame erasure rate.

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14. The system of claim 8, wherein a gain of the low noise amplifier is adjusted based on a received signal strength.

15. A method for improving the dynamic range of a receiver, the method comprising the steps of:

computing an error rate of a received signal; and

adjusting an input intercept point of a low noise amplifier in the receiver, depending on the computed error rate.

16. The method of claim 15, further comprising a step of detecting a transmit power level, wherein the input intercept point is selected based also on the detected transmit power level.

17. The method of claim 16, wherein if the detected transmit power level is low, and the computed error rate exceeds a predetermined level, the input intercept point is set at a maximum level.

18. The method of claim 16, wherein if the transmit power level is low, and the computed error rate does not exceed a predetermined threshold, the input intercept point is set at a minimum level.

19. The method of claim 16, wherein if the transmit power level is high, the input intercept point is set at a maximum level.

20. The method of claim 15, wherein the computed error rate is a frame erasure rate.

21. The method of claim 15, further comprising the steps of:  
detecting a received signal strength; and  
selecting a gain of the low noise amplifier based on the detected received signal strength.

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